



PATENT
176/60792 (6-11415-868)

#114
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9/5/02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Mahin D. Maines

Serial No. : 09/606,129

Cnfrm No. : To Be Assigned

Filed : June 28, 2000

For : BILIVERDIN REDUCTASE FRAGMENTS
AND VARIANTS, AND METHODS OF
USING BILIVERDIN REDUCTASE AND
SUCH FRAGMENTS AND VARIANTS

Examiner:
D. Ramirez

Art Unit:
1652

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AMENDMENT

U.S. Patent and Trademark Office
P.O. Box 2327
Arlington, VA 22202

Dear Sir:

In response to the March 20, 2002, office action, please amend the above-identified patent application as follows:

In the Specification:

Please replace the paragraph at page 2, line 16 to page 3, line 2, with the following amended paragraph.

AI
BVR was previously thought to be simply a house-keeping enzyme found in most mammalian cells in excess of, or in disproportionate levels to, heme oxygenase isozymes (Ewing et al., J. Neurochem. 61:1015-1023 (1993)). Yet it has the above-noted unique and uncommon properties. Examination of the primary structure of human BVR, which recently became available (Maines et al., Eur. J. Biochem. 235:372-381 (1996)), revealed the presence of consensus sequences that are conserved in protein kinases, the most notable one being the Gly.Xaa.Gly¹⁷.Xaa.Xaa.Gly motif near the N terminus of the protein that is found invariably in all kinases (Kamps et al., Nature 310:589-592 (1984); Hunter et al., Ann. Rev. Biochem. 54:897-930 (1985); Schlessinger, Trend. Biochem. Sci. 13:443-447 (1988); Hanks et al., Science 241:42-52 (1988); Yarden et al., Annu. Rev. Biochem. 57:443-478 (1988); Hanks et al., Methods Enzymol. 200:38-62 (1991)). A valine residue is present